

AMENDMENTS TO THE CLAIMS

1. (Cancelled)

2. (Cancelled)

3. (Cancelled)

4. (Cancelled)

5. (Currently Amended) A pressure transducer test apparatus comprising:
a fitting having an input to receive a pressure input and an output coupleable to a pressure transducer;

a valve attached to the fitting near the input, the fitting further having first and second selectable internal volumes between the valve and the output, resulting in a first pressure within the first selectable internal volume and a second, different pressure within the second selectable internal volume; and

a piston provided in the fitting, wherein the piston is remotely movable between first and second positions for selecting the first internal volume to determine the first pressure at the first position and for selecting the second internal volume to determine the second, different pressure at the second position.

6. (Currently Amended) The pressure transducer test apparatus of claim 5, wherein the piston is movable in response to an electro-magnet.

7. (Currently Amended) The pressure transducer of claim 5, wherein the valve can be remotely opened or closed ~~remotely~~.

8. (Currently Amended) The pressure transducer test apparatus of claim 5, wherein the fitting further comprises:

a primary tube having first and second opposite ends; and

a secondary tube attached to the primary tube between the first and second ends, wherein the secondary tube contains the piston.

9. (Currently Amended) The pressure transducer test apparatus of claim 8, wherein the secondary tube is attached generally perpendicular to the primary tube.

10. (Currently Amended) The pressure transducer test apparatus of claim 8, wherein the primary and secondary tubes have a non-circular cross-sections.

11. (Currently Amended) A method of in situ testing a pressure transducer comprising the steps of:

measuring a first internal pressure in a fitting at a first internal volume of the fitting using the pressure transducer;

changing the internal volume of the fitting to a second internal volume to change the internal pressure to a second internal pressure:

measuring the second internal pressure in the fitting using the pressure transducer; and

comparing the measured first and second internal pressures to historical pressure readings.

12. (Currently Amended) The method of claim 11, wherein the step of changing the volume of the fitting further comprises the step of moving a piston located within the fitting.

13. (Currently Amended) A method of in situ testing a pressure transducer comprising the steps of:

measuring a first internal pressure in a fitting at a first internal volume of the fitting using the pressure transducer;

changing the internal volume of the fitting to a second internal volume to change the internal pressure to a second internal pressure;

measuring the second internal pressure in the fitting using the pressure transducer;

comparing the measured first and second internal pressures to historical pressure reading; and

sealing an input of the fitting prior to measuring the first internal pressure.

14. (Currently Amended) A method of in situ testing a pressure transducer comprising the steps of:

measuring a first internal pressure in a fitting at a first internal volume of the fitting using a pressure transducer;

changing the internal volume of the fitting to a second internal volume to change the internal pressure to a second internal pressure;

measuring the second internal pressure in the fitting using the pressure transducer;

comparing the measured first and second internal pressures to historical pressure readings; and

calculating a sensitivity, repeatability and hysteresis ~~of~~ for the transducer using the measured internal pressures.

15. (Currently Amended) The method of claim 14, further comprising the step of calculating linearity of the transducer using the measured internal pressures and a measured temperature.

16. (Previously Cancelled)

17. (Previously Cancelled)

18. (Previously Cancelled)

19. (Currently Amended) A method of in situ testing a pressure transducer comprising the steps of:

measuring a series of first internal pressures in a fitting at a first volume of the fitting using the pressure transducer;

measuring a series of second internal pressures in the fitting at a second volume of the fitting using the pressure transducer; and

analyzing and comparing the measured series of first and second internal pressures to historical data.

20. (Currently Amended) A method of in situ testing a pressure transducer comprising the steps of:

measuring a series of first pressures in a fitting at a first volume of the fitting using the pressure transducer;

measuring a series of second internal pressures in the fitting
at a second volume of the fitting using the pressure transducer; and

analyzing and comparing the measured series of first and
second internal pressures to historical data;

wherein analyzing comprises determining sensitivity,
linearity, hysteresis, or repeatability of the transducer.

21. (Currently Amended) The method of claim 19, wherein the first and second
volumes of the fitting are determined by a position of an internal piston of the fitting.

22. (Previously Cancelled)

23. (Previously Cancelled)

24. (Previously Cancelled)

25. (Previously Cancelled)

26. (Previously Cancelled)

27. (Previously Cancelled)